

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) An optical module comprising:
an optical waveguide;
an optical element having an optical section;
a semiconductor chip electrically connected to the optical element;
a substrate having a first surface and a second surface, the substrate supporting the semiconductor chip and the optical element on the first surface;
an interconnect pattern formed on the first surface, the interconnect pattern electrically connected to the semiconductor chip; and
external terminals provided over the second surface, the external terminals electrically connected to the interconnect pattern.
2. (Currently Amended) The optical module ~~as defined in~~ according to claim 1, wherein the substrate has through holes formed therein to electrically connect the external terminals to the interconnect pattern.
3. (Currently Amended) The optical module ~~as defined in~~ according to claim 1, wherein the optical element and the semiconductor chip are packaged.
4. (Currently Amended) The optical module ~~as defined in~~ according to claim 3, wherein the semiconductor chip and the optical element are sealed with resin.
5. (Currently Amended) The optical module ~~as defined in~~ according to claim 1, wherein the semiconductor chip and the substrate respectively having first and second holes formed therein and overlapped with each other;
wherein the optical waveguide is inserted into the first and second holes; and
wherein the optical element is disposed so that the optical section and one end

surface of the inserted optical waveguide are opposed.

6. (Currently Amended) The optical module ~~as defined in~~ according to claim 1, further comprising a transparent underfill material provided between the optical element and the semiconductor chip so as to cover the optical section.

7. (Currently Amended) The optical module ~~as defined in~~ according to claim 1, wherein the semiconductor chip has an internal circuit for driving the optical element.

8. (Currently Amended) The optical module ~~as defined in~~ according to claim 1, wherein the optical element and the semiconductor chip are stacked.

9. (Currently Amended) The optical module ~~as defined in~~ according to claim 1, wherein the interconnect pattern is electrically ~~is~~ connected to the optical element.

10. (New) The optical module according to claim 1, wherein the external terminals over the second surface of the substrate are electrically connected to the interconnect pattern on the first surface of the substrate via through holes in the substrate.

11. (New) The optical module according to claim 1, wherein the substrate is conductive and includes an insulative material located at the first surface.